Attorney Docket: P.21.2028

IN THE UNITED STATES PATENT
AND TRADEMARK OFFICE

Applicant: J. P. CONIGLIONE

Application No.: 09/659,870

Filed: September 13, 2000

For: MULTI-MODE IFF
    RECEIVER ARCHITECTURE

Art Unit: 2681

Examiner:

DECLARATION OF JOSEPH P. CONIGLIONE UNDER 37 C.F.R. § 1.68

JOSEPH P. CONIGLIONE, hereby declares and states that:

1. I am the sole inventor in the above patent application, and I have personal knowledge of all matters set forth herein.

2. I received a B.S.E.E. degree from the City College of New York in 1965, and a M.S.E.E. degree from the Polytechnic Institute of Brooklyn in 1970. I have been employed in the electrical engineering field for about 35 years.

3. I am currently employed by BAE SYSTEMS Aerospace, Inc., Advanced Systems, as a senior staff engineer. I have held

this position since 1997 when I was hired by GEC-Marconi

Hazeltine Corporation, Electronic Systems Division (GEC-Marconi)

which subsequently changed its name to BAE SYSTEMS Aerospace

Inc., Advanced Systems.

4. Attached as Exhibit 1 is a portion of a proprietary

proposal dated May 17, 1999, from GEC-Marconi to Boeing

Corporation ("the proposal"). The proposal discloses a block

diagram of an IFF transponder receiver at page 2-18, Figure 2-9.

A written description is set out at pages 2-17 to 2-27 of the

proposal.

5. A contract was eventually awarded to GEC-Marconi

and actual development work proceeded from about January 1, 2000.

6. The receiver disclosed and claimed in the present

application differs from the receiver described in the proposal

in at least three respects, all of which were developed within

one year prior to filing of the present application, and were

critical in terms of their effect on receiver performance.

7. First, Figure 2-9 of the proposal and related text

describe a preselector filter F1 having an antenna input, and an

output connected to a limiting protection diode X1. It was later

found that this arrangement did not operate satisfactorily, whereas the configuration shown in FIG. 3 and described at page 9, lines 3-11 of the present application enabled satisfactory operation by placing two sets of overload limiting diodes 44, 48, *ahead* of an input preselector filter 46. I do not believe that this configuration would have been obvious from the proposal.

8. Second, according to Figure 2-9 of the proposal, a Mode 5 (wide band) IF channel begins at an output of an IF operational amplifier A3, and is directed to a Mode 5 growth module only via an operational amplifier A8. It was later found that this arrangement did not operate satisfactorily, whereas the configuration shown in FIG. 5 and described at page 12, lines 1-19 of the application enabled satisfactory operation by directing an output of IF amplifier 60 (see FIG. 3) through a wide band filter 90 followed by a limiter 92, prior to coupling with digital growth module 94. I do not believe that this configuration would have been obvious from the proposal.

9. Third, in Figure 2-9 of the proposal, the narrow band IF channel also begins at the output of operational amplifier A3, which output is led directly through a narrow band IF filter F3. It was later found that such an arrangement did not operate satisfactorily, whereas the configuration shown in

FIGS. 4 and 5, and described at page 12, line 20 to page 13, line 3 of the application enabled satisfactory operation by coupling an input of a first, narrow band IF filter 70 (FIG. 4) to an output of the wide band filter 90 in FIG. 5. I do not believe that this configuration would have been obvious from the proposal.

10. In my opinion, the proposal of Exhibit 1 was not adequate to enable one skilled in the art to practice the presently claimed invention without undue difficulty and experimentation.

11. I also declare that all statements made of my own knowledge are true and that all statements made on information and belief are believed to be true, and, further, that I have been warned that willful false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. 1001) and may jeopardize the validity of the application or any patent issuing thereon.

JOSEPH P. CONIGLIONE

Date: 11/27/2000

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